

REMARKS

The Office Action dated March 8, 2005 has been received and carefully noted. The above amendments to the title, and the following remarks, are submitted as a full and complete response thereto. Claims 1-15 are submitted for consideration.

The Office Action stated that the title of the present application is not descriptive. A new title is presented above. No new matter has been added

Claims 1-15 were rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent No. 6,118,768 to Bhatia et al. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in independent claims 1 and 14.

Claim 1, upon which claims 2-7 depend, recites a system for transmitting internal messages in a local network while maintaining message synchronism. The system includes multiple sending computer units, each for running at least one sending application process for sending an internal message. The message is sent to two or more recipients. The system also includes multiple receiving computer units, each for running at least one receiving application process for receiving a sent internal message. At least two copies of each receiving application process reside in the receiving computer units. The system further includes one interface unit per one or more computer units for buffering and relaying messages sent to and from the corresponding computer units and multiple external links each for linking a computer unit to its corresponding interface unit. The system also includes an internal interconnecting device for receiving messages relayed by the interface units corresponding to the sending computer units, and for

forwarding each received message to the interface units corresponding to the respective receiving computer units one received message at a time. The interconnecting device is internally coupled with the interface units.

Claim 8, upon which claims 9-15 depend, recites a system for transmitting internal messages in a local network while maintaining message synchronism. The system includes multiple sending computer units, each for running at least one sending application process for sending an internal message. The message is sent to two or more recipients using group addressing. The system also includes multiple receiving computer units, each for running at least one receiving application process for receiving a sent internal message. At least two copies of each receiving application process reside in the receiving computer units. The system further includes multiple multiplexer units, each for collecting messages from and distributing messages to one or more sending computer units and one interface unit per one or more multiplexer units for buffering and relaying messages sent to and from the corresponding multiplexer units. The system also includes an internal interconnecting device for receiving messages relayed by the interface units corresponding to the sending computer units, and for forwarding each received message to the interface units corresponding to the respective receiving computer units one received message at a time. The interconnecting device is internally coupled with the interface units.

As will be discussed below, the cited prior art reference of Bhatia et al. fails to disclose or suggest the elements of any of the presently pending claims.

Bhatia et al. discloses a LAN modem that interconnects a group of workstations. The LAN modem may operate as a true router and determine if a destination packet is for a local application or to be routed to a remote network. Col. 11, lines 1-23 and Figure 2A. The LAN modem may be configured to use multi-link point-to-point protocol to establish connection with the PSTN and the service provider for the remote network, where the number of ISDN-B channels that carry traffic at any one time will dynamically vary between one and two based on the occurring traffic loading. Col. 11, lines 24-42. The LAN modem may also assign local dynamic IP addresses to the workstations and can also provide two simultaneous connections for different workstations in the LAN over separate ISDN-B channels to different corresponding remote networks. Col. 11, line 43 – Col. 12, line 34 and Figure 2B. The LAN modem may also provide simultaneous access for any or all workstations in the LAN to a common service provider through a single account. As such, all packet traffic involving the workstations that share a single common public IP address will appear, by virtue of their common, though shared, public IP address, to emanate from or be directed to a single user. Col 12, line 35-Col. 13, line 63 and Figure 2C.

Applicant submits that Bhatia et al. simply does not teach or suggest each of the elements of the presently pending claims. Claims 1 and 8, in part, recite multiple sending computer units, each of which sends an internal message to two or more recipients; multiple receiving computer units, each for running at least one receiving application process for receiving a sent internal message, at least two copies of each receiving application process residing in the receiving computer units; an interface unit per one or

more computer units for buffering and relaying messages sent to and from the corresponding computer units; multiple external links, each of which links a computer unit to its corresponding interface unit and an internal interconnecting device for receiving messages relayed by the interface units and for forwarding each received message to the interface units, one received message at a time. Applicants submit that there is simply no teaching or suggestion in Bhatia et al. of multiple sending computer units, each of which sends an internal message to two or more recipients and multiple receiving computer units, each for running at least one receiving application process for receiving a sent internal message, at least two copies of each receiving application process residing in the receiving computer units as recited in claims 1 and 8. Rather the cited portions of Bhatia et al. merely discloses a LAN with multiple workstations that are connected to an ISDN LAN modem which is, in turn, connected to remote networks via a PSTN. According to Bhatia et al., the LAN modem routes inbound and outbound packets, assigns local dynamic IP addresses to the workstations and may provide two simultaneous connections for two different workstations in the LAN over separate B-channels of a common ISDN connection to different corresponding remote networks. While figure 2C of Bhatia et al. shows that users 7-10 may use the same account number to send messages to a recipient, there is simply no teaching in Bhatia et al. of users 7-10 sending an internal message to two or more recipients as recited in claims 1 and 8.

Furthermore, as noted by the Office Action, Bhatia et al. fails to teach or suggest the interface units as recited in claims 1 and 8. Nevertheless, the Office Action states that an interface unit “is inherent because every device network has to have Interface unit.”

The Office Action then suggests that links 10g-10j, in Figure 2C of Bhatia et al., connecting LAN 300 to workstations 10g-10j teach multiple external links for linking a computer unit to its corresponding interface unit as recited in claims 1 and 8. In fact, Figure 2C simply shows that workstations 10g-10j are connected to LAN modem 300. Applicant submits that even if an interface unit is inherent in every device network, an interface unit that is linked to multiple external links is not inherent in every device network and is not shown in figure 2C as stated by the Office Action. Thus, Applicants submit that contrary to the statement of the Office Action, figure 2C simply does not show, teach or suggest multiple external links for linking a computer unit to its corresponding interface unit as recited in claims 1 and 8.

Additionally, Bhatia et al. fails to teach or suggest an internal interconnecting device for receiving messages relayed by the interface units corresponding to the sending computer units, and for forwarding each received message to the interface units corresponding to the respective receiving computer units one received message at a time as recited in claims 1 and 8. Bhatia et al. fails to teach or suggest routing messages sent and received by application processes running in the same computer unit via the interconnecting device. The fact that Bhatia et al. happens to disclose a router does not indicate the functionality recited in claims 1 and 8. As described in paragraph 0013 of the present application, IEEE 802.1D explicitly prohibits Ethernet switches from sending a message back to the same computer unit from which the message was received as performed by the interconnecting device of claims 1 and 8. Thus, conventional Ethernet switches, such as the one described in Bhatia et al., need to be modified in order to enable

the functionality of sending and receiving messages by application processes running in the same computer unit via the interconnecting device as recited in claims 1 and 8. Since Bhatia et al. fails to teach or suggest such a modification, Applicants submit that router 305 in Figure 1 of Bhatia et al is a conventional router that does not include the feature recited in claims 1 and 8. In other words, based on the prohibition of IEEE 802.1D, described above, even if Ethernet hub 340 or bus 390 of Bhatia et al. is deemed to be similar to the interconnecting device of claims 1 and 8, as proposed by the Office Action, Bhatia et al. would still fail to teach or suggest maintaining message synchronization with its Ethernet hub or bus.

Additionally, as taught by the specification and reinforced in the preamble of claims 1 and 8, the present invention is directed to maintaining message synchronism in a local network. Page 1, paragraph 0004 of the present invention explains that message synchronism is maintained when a transmitting application process sends a message to a receiving application process, where an identical copy of the message is sent to each replicated receiving process running in various computer units. Applicants submit that Bhatia et al. in no way teaches or suggests the elements recited in claims 1 and 8 for maintaining message synchronism. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §102(b) should be withdrawn because Bhatia et al. fails to teach or suggest each feature of claims 1 and 8 and hence, dependent claims 2-7 and 9-15 thereon.

As noted previously, claims 1-15 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore


respectfully requested that all of claims 1-15 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time.

Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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